13 and 20-25 from U.S. Patent No. 6,194,769 ("the '769 patent") to Martin, *et al.*, which issued February 27, 2001, from U.S. Application Serial No. 323,172, filed May 27, 1999.

Applicants respectfully request that an interference be declared under 37 C.F.R. § 1.607 between the present application and U.S. Patent No. 6,194,769. The present application *i.e.*, U.S. Patent Application No. 10/083,984, filed February 27, 2002, is a continuation of U.S. Patent Application No. 09/600,346, filed on July 14, 2000, which application is a National Stage Application of PCT/US99/28282 filed on November 30, 1999, which claims priority to U.S. Patent Application No. 09/201,999, filed December 1, 1998. The U.S. filing date for U.S. Patent No. 6,194,769 is May 27, 1999. Therefore, Applicants believe that Applicants would be senior party in any interference proceedings.

Under M.P.E.P. § 2307 and 37 C.F.R. § 1.607, Applicants hereby request that an interference be declared between the present application and unexpired patent U.S. Patent No. 6,194,769. As set forth below, each of the required elements of 37 C.F.R. § 1.607 has been satisfied.

(1) The unexpired patent is U.S. Patent No. 6,194,769 ('769), which issued to Martin *et al.* on February 27, 2001.

(2) The proposed count is presented as follows:

COUNT 1

A field-structured sensor to measure an environmental parameter, comprising:

a) a field-structured composite comprising a solid nonconducting medium, and an ordered aggregate structure of conducting magnetic particles within said medium;

b) electrodes positioned to allow the electrical resistance of said composite to be measured; and,

c) a coupling mechanism which couples the environmental parameter to said composite;

Proposed COUNT 1 represents the broadest claim of the '769 patent.

(3) It is respectfully pointed out that all of the claims of the '769 patent correspond to the proposed count.

(4) It is respectfully pointed out that Claims 29-31, 41 and 48-53 of the instant application correspond to the proposed count.

(5) Support for claims 29-31, 41 and 48-53 is found throughout the specification as originally filed. Again, the present application, *i.e.*, U.S. Patent Application No. 10/083,984, filed February 27, 2002, is a continuation of U.S. Patent Application No. 09/600,346, filed on July 14, 2000, which is a National Stage Application of PCT/US99/28282, filed on November 30, 1999, which claims priority to U.S. Patent Application No. 09/201,999, filed December 1, 1998. More particularly, in the priority application, U.S. Patent Application No. 09/201,999, filed December 1, 1998, support is found as set forth below.

Claim Number	Support in U.S. Patent Application No. 09/201,999, filed December 1, 1998:
29. A field-structured sensor to measure an environmental parameter, comprising: a) a field-structured composite comprising a solid nonconducting medium, and an ordered aggregate structure of conducting magnetic particles within said medium; b) electrodes positioned to allow the electrical resistance of said composite to be measured; and, c) a coupling mechanism which couples the environmental parameter to said composite.	See, page 2, lines 25-27: "In one aspect, the present invention relates to a sensor array for detecting an analyte in a fluid, comprising at least first and second chemically sensitive resistors electrically connected to an electrical measuring apparatus, each of the chemically sensitive resistors comprising: a plurality of alternating regions comprising a nonconductive region, such as an organic material, and an aligned conductive region." Page 3, lines 5-9: "Various materials can form the aligned conductive region of the present invention. Such materials include, but are not limited to, conductive materials, semi-conductive materials, *magnetic materials*, photoresponsive materials and

	combinations thereof. The aligned conductive materials are preferably embedded in an organic matrix, such as a polymeric matrix." Page 14, lines 12-19: "The general method for using the disclosed sensors, arrays and electronic noses for detecting the presence of an analyte in a fluid involves *resistively* sensing the presence of an analyte in a fluid with a *chemical sensor* comprising first and second conductive leads electrically coupled to and separated by a chemically sensitive resistor as described above by measuring a first resistance between the conductive leads when the resistor is contacted with a first fluid comprising an analyte at a first concentration and a second different resistance when the resistor is contacted with a second fluid comprising the analyte at a second different concentration." Page 13, lines 1-9: "A wide variety of analytes and fluids may be analyzed by the disclosed sensors, arrays and noses so long as the subject analyte is capable of generating a differential response across a plurality of sensors of the array. Analyte applications include broad ranges of chemical classes including, but not limited to, organics such as alkanes, alkenes, alkynes, dienes, alicyclic hydrocarbons, arenes, heterocyclics, alcohols, ethers, ketones, aldehydes, carbonyls, carbanions, polynuclear aromatics and derivatives of such organics, *e.g.*, halide derivatives, *etc.*, microorganisms, fungi, bacteria, microbes, viruses, metabolites, biomolecules such as sugars, isoprenes and isoprenoids, fatty

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	acids and derivatives, *etc.*"
30. The field-structured sensor of claim 29, further comprising environmental parameter isolation means such that the environmental parameter is the dominant influence affecting the electrical resistance of said composite.	Page 4, lines 31-33, bridging to page 5, lines 1-3: "Each resistor provides an electrical path through the alternating regions comprising a nonconductive region, such as an organic material, and an aligned conductive region, a first electrical resistance when contacted with a first fluid comprising an analyte at a first concentration, and a second electrical resistance when contacted with a second fluid comprising the analyte at a second different concentration."
31. The field-structured sensor of claim 30, wherein the environmental parameter isolation means comprise thermal insulation.	Page 3, lines 1-4: "In certain embodiments, the conductive region can be aligned using various processing techniques including, but are not limited to, exposure to an electric field, *a thermal field*, a magnetic field, an electromagnetic field, a photoelectric field, a light field, a mechanical field or combinations thereof."
41. The field-structured sensor of claim 30, wherein the environmental parameter is an applied magnetic field.	Page 3, lines 1-4: "In certain embodiments, the conductive region can be aligned using various processing techniques including, but are not limited to, exposure to an electric field, a thermal field, *a magnetic field*, an electromagnetic field, a photoelectric field, a light field, a mechanical field or combinations thereof."
48. The field-structured sensor of claim 29, wherein the environmental parameter is concentration of *a selected chemical* in a background carrier, and the coupling mechanism exposes the composite to said carrier.	Page 13, lines 3-9: "Analyte applications include broad ranges of chemical classes including, but not limited to, organics such as alkanes, alkenes, alkynes, dienes, alicyclic hydrocarbons, arenes, heterocyclics, alcohols, ethers, ketones, aldehydes, carbonyls, carbanions, polynuclear aromatics and derivatives of such organics, e.g., halide derivatives, etc., microorganisms, fungi, bacteria, microbes, viruses, metabolites, biomolecules such as sugars, isoprenes and isoprenoids, fatty acids and derivatives, etc."

49. The field-structured sensor of claim 48, wherein the nonconducting medium changes volume when exposed to the selected chemical.	Page 6, lines 25-31: "As previously discussed, enhancing the response of the sensor can be accomplished by confining the direction of expansion of the alternating regions to be along the axis of measurement or, preferably, along the axis of the particle alignment. For instance, a polymer can have a 2% *volume expansion* on exposure to a certain vapor concentration. If this swelling can be isolated to one dimension, then the linear expansion can be as high as 8% causing a much larger change in resistance than would occur without confinement."
50. The field-structured sensor of claim 48, wherein the surface stress of the nonconducting medium changes when exposed to the selected chemical.	Page 6, lines 25-31: "As previously discussed, enhancing the response of the sensor can be accomplished by confining the direction of expansion of the alternating regions to be along the axis of measurement or, preferably, along the axis of the particle alignment. For instance, a polymer can have a 2% volume expansion on exposure to a certain vapor concentration. If this swelling can be isolated to one dimension, then the linear expansion can be as high as 8% causing a much larger change in resistance than would occur without confinement."
51. The field-structured sensor of claim 48, wherein a surface of said composite is coated with a *surface layer* whose surface stress changes when exposed to the selected chemical.	Page 10, lines 7-9: "In certain embodiments, the resistor is deposited as a *surface layer* on a solid matrix that provides means for supporting the leads. Typically, the solid matrix is a chemically inert, nonconductive substrate, such as a glass or ceramic."
52. The field-structured sensor of claim 48, wherein said nonconducting medium is *porous*.	Page 7, lines 7-10: "As the nonconductive region, such as an organic polymer, *swells*, disruption of the particle chains occurs and a lowering in the conductivity or an increase in the resistance occurs. As the polymer desorbs, the particles return to their minimum energy state that

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	corresponds to particle alignment."
53. The field-structured sensor of claim 30, wherein the environmental parameter is concentration of a selected chemical in a background carrier, and the coupling mechanism exposes the composite to said carrier.	Page 3, lines 16-23: "Furthermore, each resistor provides an electrical path through the nonconducting region and the aligned conductive region, a first electrical resistance when contacted with a first fluid comprising an analyte at a first concentration and a second different electrical resistance when contacted with a second fluid comprising the analyte at a second different concentration, wherein the difference between the first electrical resistance and the second electrical resistance of the first chemically sensitive resistor being different from the difference between the first electrical resistance and the second electrical resistance of the second chemically sensitive resistor under the same conditions;"

6) The requirements of 35 U.S.C. § 135(b) have been met because the '769 patent issued on February 27, 2001, which is less than one year from the filing date of this Application with the preliminary amendment which added claims 29-53 to the above-referenced patent application.

CONCLUSION

In view of the above, Applicants believe no new matter has been introduced. Applicants respectfully request that the Examiner declare an interference between the above-referenced patent application and the '769 patent, and furthermore, request that the examination of the present application be conducted with special dispatch.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 925-472-5000.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Please cancel claims 32-40 and 42-47 without prejudice or disclaimer.